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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/360,419	07/23/1999	AMIR DORON.	HP10991005-1	4168

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EXAMINER

WU, DOROTHY

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/360,419

Applicant(s)

DORON, AMIR

Examiner

Dorothy Wu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Acknowledgement is made of the amendments to the claims, filed on September 10, 2003. The rejection of claims 1-20 under 35 USC 112, second paragraph, are hereby withdrawn.

2. Applicant's arguments filed September 10, 2003 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Kato teaches that a motion video sequence is created by inter-frame coding still images. Parulski teaches two modes, one of which captures motion images at a medium resolution and other of which captures still images at a high resolution. One of ordinary skill would have been motivated to combine the references and inter-frame code the medium resolution still images to generate a motion video sequence for achieving greater compression in the data, and thus, storing longer video sequences in memory, while retaining higher resolution, quality still images. It is well-known that it is desirable to process image data so that it requires less storage space while sacrificing as little image quality as possible.

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The applicant has argued: "Furthermore, even if Kato and Parulski were combined... the end result would still not be invention of independent claims 1, 11, 20, and 21, which all require firmware conversion of the sequence of low resolution of still image files into a motion video sequence." As software, hardware, and firmware are all capable of implementing image processing methods, requiring firmware conversion would not render the invention of independent claims 1, 11, 20, and 21 patentably distinct.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6, 7, 11-14, 16-17, 21-22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato, U.S. Patent 6,148,031, in view of Parulski et al, U.S. Patent 5,440,343.

Regarding claim 1, Kato teaches a camera (col. 1, line 11) comprising an image sensor (CCD 10) for generating output signals representative of an image of an object or a scene of interest (col. 3, lines 18-19). The housing and lens are inherently taught. Kato also teaches a manually actuable trigger switch on operation keyboard 32 (col. 3, lines 35-38); a processing circuit (digital signal processor circuit 14) connected to the image sensor (CCD 10) for processing the output signals from the image sensor (CCD 10) in response to user actuation of the trigger switch (col. 3, lines 22-24); a memory (first memory 20) (col. 3, lines 28-29); and a

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control circuit (system control circuit **26**) connected to the processing circuit (digital signal processor circuit **14**) including means for generating image files and storing the image files in the memory (first memory **20**) after applying intra-picture coding, which reads on a predetermined still image data compression standard, retrieving the image files from the memory (first memory **20**), inter-picture coding the image files, which reads on the conversion of the image files to a motion video sequence in accordance with the predetermined motion image data compression standard, and storing the motion video sequence (col. 3, lines 41-63). Kato does not teach selectively generating a first sequence of high resolution still image files or a second sequence of low resolution still image files. Parulski et al teaches the generation of high resolution still image files and low resolution still image files (col. 1, lines 34, 57-58). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the camera taught by Kato with the generation of low and high resolution images taught by Parulski et al to make a camera with the limitations of Kato that generates high resolution images for still images and low resolution images to later be used as motion images. One of ordinary skill would have been motivated to make such a modification to obtain still images of high quality and motion images with less data such that it is possible to capture the motion images at an adequate frame rate.

Regarding claims 2 and 3, Kato teaches that the predetermined still image data compression standard is JPEG and that the predetermined motion image data compression standard is MPEG (col. 9, lines 12-14).

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Regarding claim 4, Kato teaches the use of JPEG (col. 9, lines 12-13). If a camera employs JPEG, it is an inherent feature of the camera to include a JPEG file format conversion component.

Regarding claims 6 and 7, Kato teaches that the motion scenes are captured at the standard rate of thirty frames per second, which reads on a rate sufficient to ensure substantially non-jerky motion when the motion video sequence is replayed (col. 1, lines 52-55).

Regarding claim 11-14, 16-17, because the apparatuses according to the limitations of claims 1-4, 6-7 are taught, the methods corresponding to the apparatuses are also taught.

Regarding claim 21, Kato teaches a camera (col. 1, line 11) comprising an image sensor (CCD 10) for receiving light and generating output signals representative of an image (col. 3, lines 18-19). The housing in which the sensor is mounted is inherently taught. Kato also teaches a manually actuable trigger switch, which reads on a shutter button (col. 3, lines 35-38); a circuit (digital signal processor circuit 14) for processing the output signals in response to actuation of the trigger switch (col. 3, lines 22-24); and a control circuit (system control circuit 26) connected to the processing circuit (digital signal processor circuit 14) that converts a series of still images to a motion video sequence (col. 3, lines 41-63). Kato does not teach selectively generating a first sequence of high resolution still image files or a second sequence of low resolution still image files. Parulski et al teaches the generation of high resolution still image files in a still image mode and low resolution still image files in a motion mode (col. 1, lines 34, 57-58). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the camera taught by Kato with the generation of low and high resolution images taught by Parulski et al to make a camera with the limitations of Kato that generates high

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resolution images for still images and low resolution images to later be used as motion images.

One of ordinary skill would have been motivated to make such a modification to obtain still images of high quality and motion images with less data such that it is possible to capture the motion images at an adequate frame rate.

Regarding claim 22, Kato teaches that the generation of still image data using JPEG, and the generation of a motion video sequence from still images using MPEG (col. 9, lines 12-14).

Regarding claim 24, Kato teaches an electronic viewfinder 28 (Fig. 1). It would have been obvious to one of ordinary skill to display selected ones of the high resolution still image files or the motion video sequence on the electronic viewfinder.

4. Claims 5, 9, 10, 15, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato, U.S. Patent 6,148,031, in view of Parulski et al, U.S. Patent 5,440,343, and further in view of Nanba, U.S. Patent 6,297,870.

Regarding claim 5, Kato in view of Parulski et al teach the camera according to the limitations of claim 1. See above. Kato in view of Parulski et al do not teach the embedding of JPEG files in corresponding EXIF files. Nanba teaches that a frame may be treated as an image file of an EXIF format, and that each frame has information compressed by a JPEG method, which reads on embedded JPEG files in a plurality of corresponding EXIF files (col. 6, lines 45-48). The EXIF file format conversion component is inherently taught. Therefore, it would have been obvious to insert the practice of embedding JPEG files in EXIF files taught by Nanba into the camera taught by Kato in view of Parulski to make a camera whose images are in an industry

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standard format. One of ordinary skill would have been motivated to make such a modification to ensure that the images captured by the camera are compatible with other technologies.

Regarding claim 9, Nanba teaches a display (LCD 10) that permits the user to observe image data stored in memory (col. 4, lines 13-17). Kato teaches the storage of both motion and still images in memory (col. 3, lines 41-53). The means for driving the display and the means for permitting the user to selectively observe on the display a selected one of the image files stored in memory is inherently taught.

Regarding claims 15 and 19, because the apparatuses according to the limitations of claims 5 and 10 are taught, the methods corresponding to the apparatuses are also taught.

Regarding claim 10, Nanba teaches means (USB interface) for transmitting image data to a host (PC 1000) (col. 6, lines 55-57; col. 7, line 61-col. 8, line 8). Kato teaches the storage of both motion and still images in memory (col. 3, lines 41-53).

Regarding claim 20, Kato teaches an electronic still camera (col. 1, line 11) comprising an image sensor (CCD 10) for generating output signals representative of an image of an object or a scene of interest (col. 3, lines 18-19). The housing and lens are inherently taught. Kato also teaches a manually actuable trigger switch on operation keyboard 32 (col. 3, lines 35-38); a processing circuit (digital signal processor circuit 14) connected to the image sensor (CCD 10) for processing the output signals from the image sensor (CCD 10) in response to user actuation of the trigger switch (col. 3, lines 22-24); a memory (first memory 20) (col. 3, lines 28-29); and a control circuit (system control circuit 26) connected to the processing circuit (digital signal processor circuit 14) that selectively generates a first or second sequence of still image files, stores the image files in memory (first memory 20) in accordance with a JPEG still image data

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compression standard to create a plurality of JPEG files, retrieves image files from memory, and converts them to a motion video sequence in accordance with an MPEG motion image data compression standard, and stores the sequence in memory (second memory 22) (col. 3, lines 41-63, and col. 9, lines 12-14). Kato does not teach the generation of high resolution still image files and low resolution still image files. Parulski et al teaches the generation of high resolution still image files and low resolution still image files (col. 1, lines 34, 57-58). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the camera taught by Kato with the generation of low and high resolution images taught by Parulski et al to make a camera with the limitations of Kato that generates high resolution images for still images and low resolution images to later be used as motion images. One of ordinary skill would have been motivated to make such a modification to obtain still images of high quality and motion images with less data such that it is possible to capture the motion images at an adequate frame rate.

Kato in view of Parulski et al do not teach the means for embedding JPEG files into a plurality of corresponding EXIF files, nor do Kato in view of Parulski teach a display, display driver, and means to selectively display still images or a motion video sequence. Kato teaches the storage of both motion and still images in memory (col. 3, lines 41-53). Nanba teaches that a frame may be treated as an image file of an EXIF format, and that each frame has information compressed by a JPEG method, which reads on embedded JPEG files in a plurality of corresponding EXIF files (col. 6, lines 45-48). Nanba also teaches a display (LCD 10) that permits the user to observe image data stored in memory (col. 4, lines 13-17). The means for driving the display and the means for permitting the user to selectively observe on the display a

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selected one of the image files stored in memory is inherently taught. Therefore, it would have been obvious to insert the practice of embedding JPEG files in EXIF files and the option of display images taught by Nanba into the camera taught by Kato in view of Parulski to make a camera whose images are in an industry standard format, and are viewable on the camera. One of ordinary skill would have been motivated to make such a modification to ensure that the images captured by the camera are compatible with other technologies, and to playback images for display.

5. Claims 8, 18, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato, U.S. Patent 6,148,031, in view of Parulski et al, U.S. Patent 5,440,343, and further in view of Mizoguchi, U.S. Pub. No. US 2002/0012051.

Regarding claim 8, Kato in view of Parulski et al teach the camera according to the limitations of claim 1. See above. Kato in view of Parulski et al do not teach the generation of a first sequence of high resolution still image files in response to each momentary actuation of the trigger switch, and the generation of a second sequence of low resolution still image files in response to the trigger switch being actuated and held for a predetermined duration longer than the momentary actuation. Mizoguchi teaches that a single still image is captured in response to a single shutter release operation, and continuous (movie) photographing occurs at a predetermined time interval during one shutter release operation, which reads on the generation of still images in response to each momentary actuation of the shutter control and the generation of video images in response to the shutter control being actuated and held for a predetermined duration longer than the momentary actuation [0004, 0005]. Therefore, it would have been

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obvious to one of ordinary skill in the art at the time the invention was made to combine the apparatus taught by Kato in view of Parulski et al with the practice of capturing sequences of high or low resolution still images in accordance with the user actuation of the trigger switch taught by Mizoguchi to make an apparatus where high resolution images are captured when the trigger switch is actuated once and low resolution images are captured when the trigger switch is depressed and held. One of ordinary skill would have been motivated to make such a modification to give the user an easy way to control when still or motion images are being captured.

Regarding claim 18, because the apparatus according to the limitations of claim 8 is taught, the method corresponding to the apparatus is also taught.

Regarding claim 23, Kato in view of Parulski teach the apparatus of claim 21. See above. Kato in view of Parulski do not teach the generation of the first sequence in response to successive momentary actuations of the shutter button and the generation of the second sequence in response to the shutter button being actuated and held in an ON condition for a predetermined duration longer than a momentary actuation. Mizoguchi teaches a single image photographing function in response to a single shutter button release and a continuous-image photographing function during a shutter button release operation [0005]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the practice of executive a single image capture in response to a single shutter button release and executing continuous image capture in response to a more prolonged shutter button operation taught by Mizoguchi into the apparatus of Kato in view of Parulski to make a camera which easily switches between still and continuous image sensing. One of ordinary skill would have been

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motivated to make such a modification to switch image sensing modes without triggering another switch or button.

6. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato, U.S. Patent 6,148,031, in view of Parulski et al, U.S. Patent 5,440,343, and further in view of Aihara et al, U.S. Patent 6,223,190.

Regarding claim 25, Kato in view of Parulski teaches the apparatus of claim 1. See above. Kato in view of Parulski do not teach that a markup file is generated in response to user commands. Aihara teaches that an HTML file, which reads on a markup file, is generated whenever an image is captured (col. 7, lines 22-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the apparatus of Kato in view of Parulski with the practice of generating HTML files whenever images are captured taught by Aihara to make an image sensing apparatus that selectively captures still images or motion video sequences and generates HTML files from them. One of ordinary skill would have been motivated to make such a modification to convert the images into a common format used for display.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dorothy Wu whose telephone number is 703-305-8412. The examiner can normally be reached on Monday-Friday, 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on 703-308-7644.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

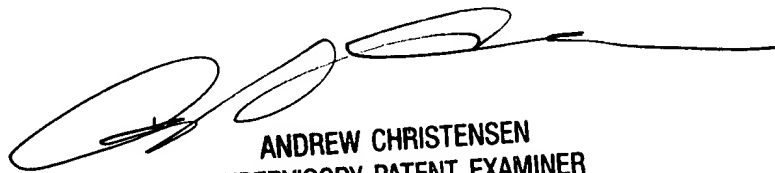
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)306-0377.

Dorothy Wu

DW

November 13, 2003

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke at the end.

ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600